

# Shedding new light on power savings at mills

IF YOU COULD SAVE TENS OF thousands of dollars in running costs at your mill every year, you'd be very interested, wouldn't you?

That's what Pukepine Sawmill Ltd in Te Puke found when it embarked on a plan to update its Highbay and Floodlighting seven years ago and the savings are continuing to come, as the mill moves to the latest generation models.

Alastair Davies, who is in charge of the electrical systems at Pukepine, is working with industrial lighting specialist PowerSave Light Company on the next phase of upgrades, which will not only add to the existing savings, but also help make the mill a safer work place.

are very substantial.

Mr Davies says the mercury vapour lights that were in the mill at the time had a couple of drawbacks the plant owners were keen to rectify. Firstly they give off a lot of heat, which would affect the plug cords over time, causing them to fail – repairing and/or replacing them often meant closing down the line, or doing the work after hours, which wasn't always convenient. Secondly, any power interruption, especially during night shifts meant downtime while waiting for the conventional lights to cool down then restart, before production could recommence.

A replacement programme saw PowerSave Highbays, using High Intensity Fluorescent

A key advantage of PowerSave Lights is that they don't take several minutes to 'strike', so if there is a power cut, they restrike within two seconds and immediately deliver full light levels. Older discharge lights can take up to 6 minutes to restrike then a further three or four minutes to come up to a light level where normal work can be resumed.

Pukepine have also installed PowerSave floodlights in the outside yard and throughout the inside of the warehouse, to provide better lighting for the early morning shifts. Floodlights are being used to illuminate dark areas around machinery to make inspections and maintenance easier and safer, too. These low energy lights are

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"Safety is obviously a very important consideration for sawmills, because many of them are housed in older structures that are not adequately lit by today's standards," says PowerSave's Grant Simpson.

"And to be fair, lighting is probably not on their radar when they are looking at how to make their business more efficient, as well as safer. Sawmill operators are not alone, it's something we have come across in other manufacturing plants and warehouses."

Once made aware of the potential savings and improvements to the safety of the workplace, companies become very enthusiastic about upgrading their lighting, adds Mr Simpson. Having worked with Pukepine and several other wood processing sites around New Zealand, PowerSave is keen for the rest of the industry to recognise the potential to reduce their power costs as well.

When Pukepine first decided to upgrade the lights in its mill seven years ago the aim was to provide better lighting, with any savings being seen as a bonus. Now with over 100 PowerSave Highbays and 50 EnergySaver Floodlights, the power savings

(HIF) lamps and electronic control gear being fitted throughout the plant. These models use less than half the Wattage, yet provide a whiter light that improves visibility at ground level. Power used for lighting has reduced to less than half and with good lamp life and minimal reduction in light output maintenance costs have reduced.

As the oldest of the original Highbays now come up for replacement, PowerSave is providing Pukepine with the latest energy efficient models throughout the site. For a similar lighting performance, these burn less than half the power, adding to the cost savings.

And, according to Mr Davies, the quality of the light they produce is very good for the visual grading of timber.

Also with a new reflector design, light levels have increased over earlier models by up to 50%, for example in one area the lux readings went from 450 lux to 650 lux.

"As we put in these new lights I've been asked by those on the production line if we'll supply sunglasses as well, because the light is much brighter," jokes Mr Davies.

very useful for providing security around premises, and thanks to their quick strike technology can be used effectively with sensors. Users of these lights have also found that people and objects can be seen more clearly on CCTV because of the colour, even though they've gone from 400W down to 110W, saving as much as 70% in running costs compared to normal floodlights.

Mr Simpson says that the payback for a new industrial lighting system at a typical plant would be between nine and sixteen months, depending on how much the lights are used. In a 24/7 operation with 100 Highbay lights running, the savings are likely to be around \$30,000 per year at current power costs, with future savings being much higher as electricity companies increase their charges.

Those figures should make any sawmill or wood processing plant operator sit up and take notice.

For further information on upgrading lighting contact Grant Simpson or Warwick Wilkinson on 09 444 4043 or visit [www.powersavelight.co.nz](http://www.powersavelight.co.nz) ●

